

Abstracts

Mathematical Expression of the Loading Characteristics of Microwave Oscillators and Injection-Locking Characteristics (Short Papers)

K. Fukumoto, M. Nakajima and J.-I. Ikenoue. "Mathematical Expression of the Loading Characteristics of Microwave Oscillators and Injection-Locking Characteristics (Short Papers)." 1985 Transactions on Microwave Theory and Techniques 33.4 (Apr. 1985 [T-MTT]): 319-323.

Most of the studies concerning microwave oscillators have so far been based on the Van der Pol oscillator model. However, this model is too simple to obtain good agreement between observation and theory. Our previous paper proposed a new mathematical model which describes the loading characteristics of oscillators more accurately than the Van der Pol model does. In this paper, we have investigated injection-locked microwave oscillators using the mathematical model to find out the relation between the loading and injection-locking characteristics.

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